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REMARKS

The application has been reviewed in light of the Office Action dated October 3, 2007.

Claims 1-38 are pending, with nonelected and unexamined claims 3-38 having been withdrawn by the Patent Office from examination. By this Amendment, claim 1 has been amended to clarify the claimed subject matter thereof. Accordingly, claims 1 and 2 are presented for reconsideration, with claim 1 being in independent form.

Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Kuwabara et al. (JP2004-99280).

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claim 1 is patentable over the cited art, for at least the following reasons.

The present application relates to various improvements devised by applicant for an image forming apparatus, to improve quality of images formed by the image forming apparatus on a recording medium.

In an aspect (claim 1) of the present application, an image forming apparatus includes a charger that *applies positive and negative electric charges alternately to a conveyance belt* that conveys a recording medium by attracting the recording medium by an electrostatic force generated by positive and negative electric charges applied thereto, and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt.

Such an approach (in claim 1 of the present application) averts the problems of conventional apparatuses that uniformly charge a conveyance belt by utilizing a DC power supply (to supply the electric charge for attracting the recording medium), such as the problem of

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deflection of ink droplets from an electric field caused by charges on the medium, causing offsets in landing positions of the ink droplets on the recording medium.

Applicant found through substantial investigation that by applying positive and negative electric charges alternately to the conveyance belt and adjusting an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt, the deflection of ink droplets can be minimized.

Kuwabara, as understood by Applicant, proposes an electrostatic attraction system for a paper carrying device including an electrostatic attraction belt 5 applied around a conductive roll 2 on a grounded paper feeding side and a conductive roll 3 on a paper delivery side, and an electrifying roll 10 connected to a direct current high voltage power supply 15 which is brought into pressure connect with the conductive roll 2 of the paper feeding side through the electrostatic attraction belt 5. In the system proposed by Kuwabara, a paper sheet 7, after passing over the electrifying roll, is electrostatically attracted to and carried by the conveyance belt.

There are a number of substantial differences between the system proposed by Kuwabara and the subject matter of claim 1 of the present application.

In the system proposed by Kuwabara, the charge is applied directly by the electrifying roll 10 to the paper as the paper is passed over the electrifying roll 10.

In contrast, in the subject matter of claim 1 of the present application, the electric charges are applied to the conveyance belt, and charges are induced on the surface of the recording medium by the electric charges applied to the conveyance belt.

It would not have been obvious to modify the system proposed by Kuwabara to apply the electric charges to the conveyance belt, because Kuwabara teaches away from such an approach. Kuwabara teaches that by applying the electric charge directly to the paper, use of a corona static

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eliminator can be avoided, ozone generation problems can be suppressed, manufacturing costs can be reduced, charges remaining on the belt after the paper sheet is stripped can reliably be eliminated, and sufficient attraction effect can be ensured.

Another difference is that Kuwabara proposes a direct current (DC) high voltage power supply 15 is utilized to supply the electric charge.

In contrast, the subject matter of claim 1 of the present application provides for applying *positive and negative electric charges alternately* to the conveyance belt and adjusting an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt.

Kuwabara simply does not disclose or suggest such an approach.

While Kuwabara proposes that the potential applied by the direct current high voltage power supply 15 can be adjusted based on various factors, the object of the adjustment is to attain sufficient attraction force and minimize charges remaining on the surface of the conveyance belt, after paper is stripped from the belt.

Kuwabara is not concerned with deflection of ink droplets caused by charges on the recording medium.

Applicant simply does not find teaching or suggestion in the cited art of an image forming apparatus includes a charger that *applies positive and negative electric charges alternately* to a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by positive and negative electric charges applied thereto, and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt, as provided by the subject matter of claim 1 of the present application.

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Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claim 1 and claims depending therefrom are patentable over the cited art.

In view of the remarks hereinabove, Applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that are required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

  
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